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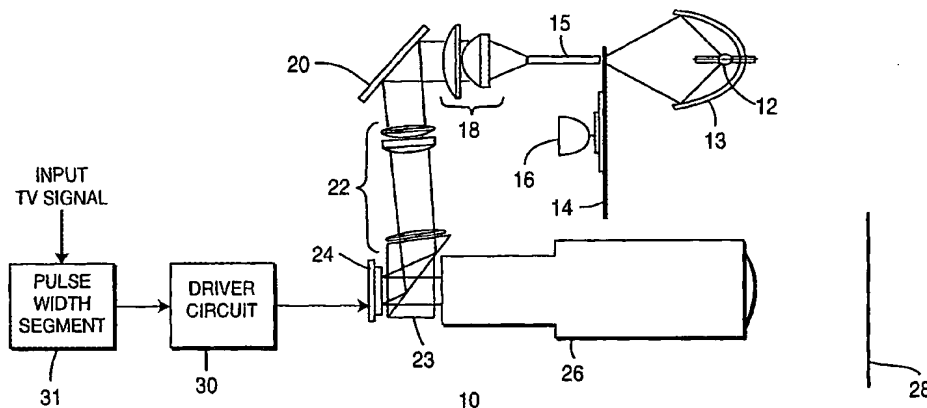
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(54) Title: **PULSE WIDTH MODULATED DISPLAY WITH EQUALIZED PULSE WIDTH SEGMENTS**



(57) Abstract: A field sequential pulse width modulated display system (10) comprises a digital micromirror device (DMD) (24) having a plurality of micromirrors that each selectively pivot to reflect light onto a screen (28) to illuminate a corresponding pixel. A driver circuit (30) controls the DMD (24) responsive to sequences of pulse width segments formed by a processor (31). The processor (31) alters the actuation state of at least one pulse in a first pulse width segment for a given color to alter the pixel brightness with a range lying between first and second pixel brightness boundaries. Further, the processor alters the actuation state of at least one pulse within at least one additional pulse width segment to alter the pixel brightness above the second brightness boundary to make nearly equal the total width of pulses becoming actuated within a segment to the total pulse width becoming de-actuated within the same segment to achieve an incremental change in brightness. Equalizing the weight of the total duration of actuated pulses to non-actuated pulses on a segment by segment basis serves to reduce motion artifacts attributable to light redistribution effects on intensity gradients.